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ABSTRACT

The potential impacts of teacher work reform efforts on attracting and retaining the best teachers are summarized in this paper, which draws on research conducted in Utah, Colorado, and Missouri between 1985 and 1991. Bluedorn's (1982) model of turnover is used to evaluate the effects of teacher work reform on turnover, which is composed of expectations, work experiences, job satisfaction, job and professional commitment, and intentions to stay or leave. Findings indicate that academic ability and work performance affect teachers' attitudes toward turnover, and that work redesign reforms affect student performance. Four issues should be considered in designing a plan to attract and retain the best teachers: (1) the target population of quality teachers holds different work values and aspirations then do teachers of lesser ability and promise; (2) career ladders exhibit early positive effects; (3) evaluation should demonstrate the link between teacher work reform and student outcomes; and (4) there is a need for maintaining support systems. (26 references) (LMI)

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WORK FEATURE VALUES OF TOMORROW'S TEACHERS: WORK REDESIGN AS AN INCENTIVE AND SCHOOL IMPROVEMENT POLICY

A paper presented at the annual meeting of the
American Educational Research Association
San Francisco, April 1992

Ann Weaver Hart, University of Utah

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Americans spend millions of dollars each year on reforms designed to improve education by altering the structures and processes of schooling. Changes in teachers' work, compensation, and incentive systems are a major thrust of many state public education plans (See, for example, Utah H.B. No. 162 [53-1a-104(7)], 1992). These reforms take many forms. They alter the organization, accountability, and authority structures of districts and schools. They reshape curriculum, instruction, and resource allocations. Block grants invest in district-level decision making on the belief that local communities make the best education decisions; career ladders restructure incentive systems, teachers' work, and educators' career opportunities on the belief that better teachers make better schools and produce better student outcomes; site-based management, participative decision making, and shared governance restructure authority, decision making, and accountability on the belief that teachers, administrators, and parents who work directly with children know best what goals and actions will improve student learning; merit pay reconfigures compensation patterns on the belief that differentiation will stimulate high levels of teacher achievement. All these reforms break with traditional education practice in some way.

This paper examines the potential impacts of one group of these reforms--those that focus on new work, career, and incentive structures for teachers (merit or performance pay, career ladders, mentor programs, site-based decision making). These reforms aim to attract and retain high quality teachers by providing them with the incentives they seek and work structures and environments they value. The paper draws on research conducted in Utah, California, and Missouri between 1985 and 1991 seeking evidence of outcomes emerging from a decade of teacher work reforms. In particular, it focuses on the impacts of these reforms on the best and brightest teachers rather than on all teachers as a group. The implications of

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these studies of teacher candidates, new teachers, mentor and lead teachers, and other experienced teachers for teacher turnover and educational policy are discussed.

Background

Policy makers struggle with two serious problems when they try to improve schools and students' learning by improving teaching: teaching suffers a high attrition rate; and those with the greatest ability and potential quit in greater numbers than their less able counterparts (Hart & Murphy, 1990; Schlechty, 1981; Smith, 1986). While many of those who leave eventually will return to teaching, a smaller proportion of teachers who themselves were high performers (Grade Point Average and test scores) say they plan to return to teaching (Smith, 1986). Evidence exists that turnover also is higher among teachers in areas of high demand--mathematics and science--in part because their opportunities to leave teaching for a higher paying job are greater (Ehrenberg & Smith, 1986; Hart & Murphy, 1990). Scholars suggest that the exit of high quality young workers also has a negative effect on those who stay. Consequently, teachers who remain may have to reconcile their decision in light of evidence that many others of similar abilities, skill, and education are leaving. They assess their work by comparing themselves to other young teachers who are like them and may become increasingly discontent as a result of the comparison (Pfeffer & Lawler, 1978).

Teachers' tasks, responsibilities, and authority can be designed in ways that reduce dysfunctional turnover (turnover among the best teachers), enhance the appeal of teaching work, and promote student learning, however. Research confirms that teachers (as do other people) value different work structures and rewards, depending on a variety of personal characteristics, including general intelligence and past achievement, work experience, and need for achievement (Barnabe & Burns, 1991; Hart, 1990; Ebmeier & Hart, 1992). High ability teachers assess the teaching job and their opportunities differently from their less able counterparts (Schlechty & Vance, 1981; Smith, 1986).

Much of the current education reform literature begins with this assumption--that the young people we want to attract to the teaching profession and the best current teachers value professional work and reward opportunities different from those currently available to them (Bacharach, 1990; Murphy, 1990). For any incentive reform to affect the overall quality of the teacher corps, these people (not all teachers or all potential teachers) must be the population reform plans target. If a lack of opportunities, pay, and desired work characteristics indeed affects turnover among the best and brightest teachers, then teacher work redesign may yield the benefits of improved attraction and retention while also contributing to school improvement efforts.

Despite the impact of personal characteristics and labor market features on teacher turnover, many of these factors fall outside the direct influence of educational managers and policy makers. They cannot manipulate the job market for mathematicians, biologists, or chemist; they cannot control personalities. On the other hand, work assignments, reward systems, decision making opportunities, and authority structures can be altered by policy makers, and data on the work design values of the target population of teachers and potential teachers now is available.

Most theories of labor market turnover examine these organizational conditions, because they are major determinants of choices to enter, remain in, or leave a profession and can be altered. In 1982, Bluedorn presented a "unified" model of turnover that helps explain the factors related to these decisions. This model integrated existing models of expectancy and valence in work turnover research, emphasizing the nature of turnover as "the entire cycle of accessions and separations across organizational boundaries" (Bluedorn, 1982, p. 100). It expanded the conventional view of turnover as a separation from the organization by including the expectations and accession stages in the full work cycle.

The model Bluedorn (1982) developed offers insight when applied to many work settings and professional fields. Bluedorn proposed that people bring with them to the

workforce personal characteristics that employers can choose from but which they cannot change and a set of expectations about their work and careers. Their experiences working within a particular organization (organization experienced), interacting with those expectations and characteristics, produce job satisfaction. Job satisfaction in turn leads to organizational commitment. When commitment is low and environmental opportunity is high, job search, intent to leave, and turnover result. Figure 1 provides an illustration of this process.

I used Bluedorn's model of turnover to frame this analysis, because it provides a way to examine the path through which reform in teaching might reduce turnover among teachers possessing valued characteristics and abilities. These teachers' expectations, experiences, satisfaction, organizational commitment, and intent to leave become important aspects of the evaluation of reform. Research in schools applying models of turnover demonstrates that teachers of differing promise and academic ability and with different work experiences as leaders or mentors differ substantially in the organizational and work experiences they value in teaching (Ebmeier & Hart, 1992; Hart, 1990a; Murphy, Hart & Walters, 1989; Smylie & Smart, 1990; Smylie & Denny, 1990).

Framework

The effects of teacher work reform on turnover among the best and brightest teachers can be evaluated using Bluedorn's (1982) unified model of turnover: people's (1) expectations, (2) work experiences, (3) job satisfaction, (4) job and professional commitment, and (5) intentions to stay or leave (Bluedorn, 1982; Murphy, Hart & Walters, 1989). These components are useful for understanding how the experiences people have at work shape their decisions to stay and engage in their work with vigor, to stay while searching for other opportunities, or to leave.

(1) Expectations encompass beliefs about the chosen career or job that people carry with them into the work. Expectations can range from salary and promotions to the

social-psychological environment (e.g., whether it is highly competitive or cooperative; whether decision making is shared or kept within the tight control of management).

(2) Work (or organization) experienced describe actual experiences (as opposed to expectations).

(3) Job satisfaction or dissatisfaction then follows as people compare their expectations for what their work should be like with their actual experiences.

(4) Commitment to the organization or the career develops from satisfaction, or people begin exploring other work options (job search). (5) Intent to leave develops when dissatisfaction is high or job search yields promising alternatives.

These five components of career turnover can be used to analyze the impacts of teacher work reforms on possible dysfunctional turnover among the best teachers. They provide a particularly useful framework for examining the turnover issue in general, because the framework addresses the concept of turnover as a career-long series of related experiences beginning with the first decision to enter a job or career and ending with the decision to leave it.

The Bluedorn unified model of turnover formed the basis of the Utah and California studies summarized in the following sections. Key questions guided these studies:

1. How do academic ability and work performance affect the turnover attitudes and actual turnover of teachers in various stages of their careers from preservice to advanced leadership positions?
2. How do incentive, work design, and reform features affect teacher turnover attitudes?
3. Do high performing, high ability teachers perceive the work and incentive redesign features of career ladders and mentor teacher programs more favorably than do their less able and less promising counterparts?

4. What experiences working, supervising, leading, and making decisions affect teachers attitudes about the features of their work under various reform structures?

5. What effects do these teachers see the reforms having on curriculum, instruction, teaching, and learning in schools? What other performance data such as organizational effectiveness are available?

Important aspects of the turnover question remain unaddressed by the turnover studies. These aspects relate to desired participation in new governance and decision making structures and organizational outcomes of redesign interventions. Two studies (Sorensen, 1991; Ebmeier & Hart, 1992) are reviewed to provide some insight into these important issues.

Teacher Work Redesign

Teacher work reforms have had highly varied success along very different dimensions (Amsler, Mitchell, Nelson & Timar, 1988). Yet some features of work reform appear to affect teachers in systematic ways, having implications for policy designed to attract and retain the best possible corps of teachers. To avoid the problem of comparability across reforms (career ladders, site-based decision making, mentors and teacher leaders, etc.), I refer to work and incentive features by generic names designed to capture the actual work patterns in the plans rather than the names attached to plans by their designers.

Turnover in the First Five Years--Attitudes and Actions

One study provides particular insight into the turnover of early career teachers in Utah. Murphy, Hart and Walters (1989) studied teachers in a career ladder district that included work enlargement, teacher leadership positions, and merit pay in its plan. After developing and testing an instrument based on Bluedorn's model and work design research, they collected responses from teachers with five or fewer years of experience. Five years was chosen as the cutoff because research on teacher turnover suggests that most teachers make their decision to leave within that period. Surveys were collected from 154 teachers (an 88%

return rate) in the spring of 1986. The principals in each school then were asked to rate the teachers as outstanding, good, average, or low promise as a teacher. Principal ratings, along with each teacher's undergraduate grade point averages (GPA), were recorded along with teachers' responses to the survey. GPAs were adjusted for academic major using an adjustment factor developed to award academic honors at the University of Utah (Smith, 1986, p. 46).[1] A sample of 15% of those who returned the survey then were interviewed.

The data about work attitudes thus gathered were then compared with the teachers' turnover rates. In December, 1988, 98 of the 154 respondents still were employed by the school district, resulting in a turnover rate of 35.5% in a three year period. No names or other identifying information was kept on any individual teacher once the data were included in the final data set.

The results of the analysis highlight the importance of identifying target groups when studying the responses of teachers to school reform. Factor analysis revealed multiple underlying factors within several of the categories in Bluedorn's model influencing the attitudes of teachers in the sample. Preliminary factorings suggested that these multiple underlying factors existed in all the attitudinal categories (e.g. expectations, organization experienced, satisfaction). Items in each of the six turnover attitude categories in Bluedorn's model were factor analyzed using mean scores for each of the ability/performance groups (N=46). This technique was used to stabilize the data and in response to indications of multiple underlying factors in each category. After some experimentation, the researchers found that forcing two factors per category gave reasonable results. They computed standardized factor scores for each respondent and calculated group means. Factor names developed from the highest loading items and group means for selected population subgroups. Performance and demographic data formed the basis of 46 groups for analysis.

For promise and GPA, the respondents were classified into two groups: those with outstanding promise (principal's rating = outstanding), and those less promising (principal's

rating = low, average, or good). Principals' ratings necessitated this dichotomy. Principals rated most teachers good or outstanding; only 25 were judged poor or average. Were the groups to have been split good/high and low/average, two very unequal groups would have resulted, limiting analysis. The analysts split respondents into two groups on GPA: those above the mean and those below it (Mean = 3.24, SD = .375). After various procedures were performed to stabilize the data (See Murphy, Hart & Walters, 1989), two factors per category in the Bluedorn model were examined. The responses of selected population subgroups then were plotted.

The research revealed significant differences (greater that a full standard deviation) between teachers of high academic achievement and promise and teachers of less promise and lower academic achievement in their attitudes about their work and in their turnover rates. (Summaries of a few of these differences can be found in figures 2-5.) Particularly striking, the responses of teachers classified as high achievement (i.e., above the overall mean on undergraduate GPA) and high promise (i.e., principals rated their promise as teachers as outstanding) stand in contrast to those of teachers classified as low ability (below the overall GPA mean) and less promising (rated by their principals as low, average, or good).[2] Teachers who stayed and teachers who resigned showed marked differences as well. A few of the findings from these data illustrate the differences among work and career attitudes of the teachers in their first five years of experiences who responded to this survey.

Expectations. Early career teachers' expectations fell into two categories: (a) time and resource availability and (b) rewards and opportunities offered to good teachers. Teachers with positive expectations about time and resources believe they can achieve their teaching goals if they have sufficient time and resources. When supplies of these resources are inadequate, they can be remedied with effort. Expectations about rewards and opportunities involve pay, authority, responsibility, and opportunity for professional growth. Teachers with positive expectations about rewards feel that good teachers should have more pay and responsibility.

If these expectations are met or teachers believe they rely on obtaining them, they say they are more likely to remain in teaching.

Figure 2 is a plot of six target group responses on the two dimensions of expectations. (Responses are shown as standardized scores to reveal when differences exceeded a full standard deviation from the mean.) High GPA, high promise teachers who stayed valued clearly different rewards and hold different expectations about the probability they will receive these rewards than the high GPA teachers who left. The differences between expectations among low GPA, low promise teachers who left and stayed were less pronounced, illustrating that the turnover effect of unmet expectations for increased pay and responsibility on high/high teachers was much greater (see figure 2). The target population of teachers held clearly different career expectations.

Work (Organization) Experienced. Because of the nature of the research (focusing on reform), the organization experienced factors emphasized features of work included in Utah's career ladder plans--mentor and lead teachers. They also emphasized the work characteristic found to be most salient for teachers as a career group--professional autonomy (Barnabe & Burns, 1991; Hart, in press). The two critical dimensions these teachers identified in their experience were: (a) the contribution of teacher work reform to teacher and school improvement and the quality of the mentor/lead teachers and (b) professional autonomy--teachers' discretion to teach and make decisions in a school.

Again, differences among groups surpassed a standard deviation. High GPA, high promise teachers who stayed saw career ladder teachers' contributions and their own professional autonomy in a positive light. Those who left perceived an erosion of autonomy and devalued the professional contributions made by lead teachers. Low GPA, less promising teachers in general rated career ladder teachers' contributions positively, but stayers felt differently about autonomy (see figure 3). Perhaps teachers of poorer promise and ability receive more supervision (because of problems) than do other teachers (see figure 3).

Job Satisfaction. Two dimensions of satisfaction characterized the responses of this sample: (a) satisfaction with the teaching job and (b) satisfaction with teaching efficacy--ability to affect children positively and bring about learning. Satisfaction, too, revealed differences between the highest and lowest performing teachers.

Among the high GPA high promise group, the stayers and leavers differed most in their satisfaction with their own professional efficacy. Unhappily, high achievement, high promise teachers were less satisfied with the teaching job than were their less able peers. Low GPA, less promising teachers seemed quite satisfied with teaching; performance efficacy distinguished those who left. In both the high and lower performing groups, dissatisfaction with their own ability to affect learning in children most characterized the job satisfaction attitudes of leavers. High GPA, high promise teachers also left because they did not like the teaching job (see figure 4).

Commitment. The two underlying dimensions which most explained the variance in commitment for this sample were: (a) commitment to the organization/district and (b) commitment to the teaching profession. Differences on this factor revealed underlying challenges for districts seeking to retain their best and brightest teachers (see figure 5).

High GPA, high promise teachers most committed to the profession and the organization were also those most likely to stay. High GPA, high promise teachers demonstrated higher professional commitment and considerably lower organizational commitment than low GPA, less promising teachers. Low, low teachers felt the greatest commitment to the district organization but differed in their commitment to the profession.

Intent to Leave. This factor provided less stable data than the others investigated in the study. A general intent to leave among high and low performers who left appeared in questions targeting intent to quit the present job and look for jobs in other districts. The second dimension, on which high GPA, high promise teachers (leavers and stayers) differed

from their less able counterparts, revealed the presence of options or the perception of options outside the teaching profession. More opportunities to leave come to high achievers.

The results of this study of turnover among teachers in their first five years reveal important differences among teachers. Teachers of high academic performance whose principals identify them as outstanding hold very different career expectations, assess their opportunities and rewards differently, and respond to authority and achievement differently than less promising, lower performing teachers. The best and most promising teachers in this study who left teaching expressed a lack of confidence that schools will consistently reward good teachers with pay, authority, and career opportunities and that schools will solve time and resource problems, a lack observed in many studies of teacher incentives. It appears that the target population of teachers--high academic performers identified as high promise teachers--find many aspects of work reform for teachers appealing. They applaud rewards in pay and responsibility for the best teachers, increased control and influence on instruction and the organization of schools, and career growth in the form of opportunity and authority over time. They also continue to explore careers outside of teaching and may leave in greater numbers than their lower performing peers. These teachers remain unconvinced that the system will differentiate fairly and consistently among the best and poorest teachers over time.

New Teachers Explain Their Reactions to New Work Designs

Following the completion of the quantitative study just reported, a follow-up interview study explored the teachers' own explanations for their attitudes and decisions. A sample of about 15 percent of the original respondents was chosen randomly for interviews. Twenty of the twenty-two teachers who were contacted agreed to participate. Six open-ended questions were designed to reveal teachers' experiences with their profession in its traditional and redesigned forms (the career ladder in particular). Teachers described their initial decision to become teachers, current feelings about teaching and future career plans, the career ladder, and the impacts of reforms like the career ladder and site-based management on their plans or

feelings as teachers. Because principal rating and academic performance data were available, differences between the most and least promising teachers were examined. Contrary to conventional wisdom, the teachers with the highest GPAs were almost always rated as having the greatest promise by their principals (who were not told about the teachers' college performance). The two exceptions were noted in data analysis (see Table 1). While a strong positive relationship existed between high principal ratings and high GPA, no differences were found between principals' ratings among the lowest and midachieving teachers. Systematic analysis of these data revealed subtleties and explanations foreshadowed by the quantitative data. A few examples from the teachers' explanations expand our understanding of school reform's potential impact on dysfunctional turnover among teachers.

Expectations. High group respondents said they chose to become teachers either as children or late in life, following other career choices. This talented pool of teachers often was drawn from other professions, from homemakers returning to the workforce, and from committed youngsters who "always wanted to be a teacher." Their explanations for their choices and hopes focused on public service. These teachers hoped to "help people achieve," "give something back to the system," and foster in young people a commitment to the "discussion and learning of ideas."

Work (Organization) Experienced. Teachers described experiences in their work: serving and nurturing children; high expenditures of effort; the connections they saw between traditional and restructured teacher work and the central functions of schools (teaching and learning); teacher efficacy, growth opportunities, and power; the new pay system and their perceptions about their ability to make progress professionally under the current salary schedule; and societal esteem for the teaching profession.

The service ethic dominated the work of all but the lowest performing teachers and the one teacher with poorer college grades who was rated highly by his or her principal. The best teachers also talked about the intensity and quantity of effort required to be a teacher.

Echoing the teachers interviewed on the one-year anniversary program for "Teach for America," a teacher said, "The job is more of everything than I thought it would be--more frustrating, more rewarding." Like the quantitative responses, the teachers' descriptions of their work emphasized the criticality of their ability to affect student learning in order to feel that they are accomplishing their goals. The teachers repeatedly praised new work structures that tie rewards to the core work of teaching and learning rather than decoupling pay from actual tasks performed on a daily basis. They systematically excoriated ratings on a few observations as a basis for merit pay, arguing that continuous, regular observation and interaction through collegial work provide better data. Not a single teacher among the highest performers mentioned supervision as a powerful force in improving teachers' quality and contribution to the school. Instead, they focused on the importance of visible student outcomes and teacher leadership within the school. While all respondents attacked merit pay and questioned instruments as evaluation tools, only the lowest group praised the salary lane and step system and their ability to make career progress within this system.

Job Satisfaction. The issues that these teachers related to their own job satisfaction paralleled those that they said characterized their experiences in their early years as teachers. Dissatisfaction emerged in conjunction with a poor articulation between tasks they were expected to perform and the core functions of teaching and learning, excessive attention to monitoring and accountability, the stability of new career opportunities, better pay for current work, and the sufficiency of career growth opportunities (e.g., promotion, responsibilities and scope of influence, advanced training).

High-group teachers in particular found the connections between core teaching and learning functions and the haphazard designs of much of many career ladders and merit pay plans to be tangential at best. Comments relating to articulation--preassessment, important and appropriate tasks, and clear expectations--increased the satisfaction of the best teachers. Praise was reserved for obvious improvement in instruction. The better teachers not only

praised opportunities to earn more money, they called for a "better definition of outcomes we're after" and for better connections between new tasks and children's needs as a source of teachers' opportunities to achieve.

Commitment. Not surprisingly, teachers in the highest group did not feel the least bit trapped in teaching. Many of them said they always are looking around and will consider leaving if teaching becomes burdensome or something irresistible comes along. They found growth opportunities through stable teacher leadership roles far more attractive than short term or one-shot job assignments. Respondents in the high group praised the long-range assignments that gave teachers power to function by marshaling the talents of other teachers to achieve learning by groups of students. They ridiculed short-term, limited work assignments and merit pay as new versions of old work ideas in schools. The teacher with the highest GPA in the sample and the highest promise rating from her principal was scathing in her criticism of trite, unnecessary tasks disconnected from student outcomes associated with teacher work reform.

Intent to Leave. One high group member summed up the feelings of the best teachers. She said she was "trying out teaching.... You can change careers. The issue is your level of commitment to it while you're doing it." These teachers felt free to leave at any time and committed to students, not school systems. Their liberation from limits reappeared over and over in their interviews, and their belief that options were available to them was strong.

In their own words, teachers described the impacts of teacher work and incentive reform on their attitudes. In study after study, the teachers whose own academic careers and professional lives resulted in success held different work attitudes and respond to different incentives than do their less able peers.

Teacher Candidates--Predicting Turnover in Advance

The preponderance of evidence in the preceding studies affirms significant differences among teachers in their responses to work design reform as well as to the features of more

conventional designs of teaching work and decision making. They also reveal differences in teachers' beliefs about the effects of this work on students. These differences occur among teachers at various levels of experience, of varying ability, who have had varying role opportunities and have experienced varying achievement in their teaching careers. The impacts of these features on teacher candidates deserves the interest of policy makers, because it provides insight into the future effects these reforms might have on the teacher workforce. When studies of mentor and lead teachers, high performing teachers in their early years in the profession, and teacher candidates are compared, a more complete picture of the workforce effects of reform can be obtained.

This portion of the paper reports the findings of a study of college students preparing for a teaching career. The study investigated the impacts of restructured work in schools on current and projected job satisfaction and intent to become career teachers of students of differing ability and promise.

The research questions that framed the mentor teacher and new teacher studies reported in this paper also guided this research. The instrument developed by Murphy and Hart for the investigation of turnover attitudes of teachers in the first five years of their careers (and previously adapted for the California mentor and portions of the Missouri career ladder studies reported later) was adapted for this investigation. Questions on current work experience were rewritten to relate to student teaching and future teaching experience, and questions about expectations and organizational values were worded in the future tense.[3] The researcher also collected five data on demographic variables. These included level of school (elementary, middle, and high school), subject, sex, age, and district. A numbered copy of the instrument along with a cover letter from the researcher explaining the methods and purpose of the study was sent through the university mail system to 185 students who completed student teaching at the University of Utah during the 1989-90 school year. The student teachers worked in districts undergoing various career ladder and site-based management

reforms. Students who chose to complete the survey returned it anonymously to the researcher in a self-addressed, stamped envelope. This process resulted in 55 useable responses, a return rate of only 30%. With the teacher candidates' permission, their university supervisors' and cooperating teachers' ratings of their performance, ACT (or SCAT) scores, and cumulative GPAs were then recorded from university files.

The low return rate can be attributed to a number of factors. The school year had just ended, and the teacher candidates all were graduating and looking for jobs. Some teacher candidates did not return to the university to pick up their mail during the final weeks of the academic year. Because of the low return rate, a number of procedures were used to check for systematic differences between respondents and nonrespondents. The researcher compared the ratios of male to female students, undergraduate GPAs, supervisor and cooperating teacher ratings, SCAT and ACT scores, and school level in the responding and nonresponding populations. These tests revealed no systematic differences. For this reason and because the study was exploratory in nature, the analysis proceeded. However, the small number of respondents and low return rate make it necessary to consider these results preliminary and primarily useful as a body of data to be compared with the results of studies of other populations and used to develop research with teacher candidate populations in the future.

The data analysis included multiple statistical procedures. First, descriptive statistics were computed for each item and each respondent (N = 55). Second, the researcher performed a factor analysis (based on 1-way means, principal component extraction and varimax rotation for the 59 items) to test and refine the conceptual categories in the instrument, and questions incongruent with factor patterns were eliminated. Third, in order to examine the effects of level (elementary versus intermediate versus high school), gender, supervisor rating, and GPA on the four factors from the factor analysis, a series of multiple linear regressions were performed. Finally, analysis of variance tested significant differences in career and work

attitudes among the teacher candidates based on their own performance records and on their plans to teach at the secondary or elementary level.

A four factor model best described the career choice and turnover attitudes of this sample of student teachers and helped illuminate the values that motivated their choices to attempt a teaching career. The researcher named the factors according to the focus of items that loaded highest on each factor. Questions that failed to load on any factor or loaded equally on two factors were eliminated from the analysis. Taken together, the four factors explained 48% of the total variance in the teacher candidates' attitudes toward their careers. The factors included: (1) satisfaction and pride in the teaching profession; (2) teacher leadership opportunities and school improvement links to career satisfaction along the dimensions of curriculum, instruction, and decision making; (3) power and professional efficacy, including the need to tie rewards for the best teachers to benefits for students; and (4) the search for a first job and, subsequently, for stable leadership opportunities and professional growth. (See Table 2 for the factor loadings and items in each factor explaining the early career attitudes of the teacher candidates.) These factors did not exactly replicate the five components Bluedorn's turnover model applied to experienced workers. They combined the major components of expectations and commitment. The other three factors encompassed work experiences under redesigned work, attitudes about rewards and satisfaction with these incentives, and intent to leave the profession or district. While they roughly replicate the model, but the factors suggest that new teachers experience these components less clearly than more experienced professionals. (See discussion of mentor teachers that follows.)

Although the factors explaining the variance in responses of teacher candidates differed somewhat in their focus from the actively working and mature teacher populations investigated using the same theoretical model and instrument, important themes in the work redesign and school reform literature emerged from the analysis. Teacher candidates at this early stage (having just finished student teaching) expressed enthusiasm and pride in their

choice of the teaching career. They were eager to see reforms that provided opportunities for the best teachers and linked with student benefits. They sought career growth and development opportunities for themselves along with a first job and chance to try their wings.

Following the factor analysis, the career and work values of teacher candidates of high and low achievement and promise were examined. Teachers with high GPAs (above 3.5 out of 4.0) and high ratings by supervisors (5.0 on a 5.0 point scale) were compared with the career values of teachers of lower academic achievement (below 3.2 out of 4.0) and less promising ratings (other than 5.0).

In an effort to examine the effects of level (elementary versus intermediate versus high school), gender, supervisor rating (low versus high), and undergraduate GPA (moderate versus high) on the four factors, a series of multiple linear regressions were performed.[4] Based on the results of the regression analyses, only factors one and three warranted further analysis. For factor one, supervisor rating and undergraduate GPA emerged as viable independent variables for use in a 2x2 factorial analysis of variance (ANOVA). For factor three, level was identified as a viable independent variable for use in an ANOVA.

For the analysis of factor one, a main effect was found for supervisor rating, ($F(1,31) = 6.37$, $p < .05$., MSe = .23528; See Table 3). Teacher candidates with high supervisor ratings responded more favorably to items concerning their pride and satisfaction with teaching than did other candidates. In addition, a main effect was found for GPA, ($F(1,31) = 5.92$, $p < .05$, MSe = .23528; See Table 3). Teacher candidates with low GPAs responded more favorably to items concerning their pride and satisfaction with teaching. For the analysis of factor one, no other results reached significance (all $ps > .90$).

For the analysis of factor three, a main effect was found for level, ($F(2,51) = 5.86$, $p < .01$, MSe = 1.0895; See Tables 4 and 5). Subsequent post hoc analysis, using the Tukey Studentized Range Method, revealed that high school teacher candidates responded

significantly more favorably to performance-based rewards and teacher power than did elementary teacher candidates ($p < .01$; See Table 6).

Although the four factors explaining the variance in responses of teacher candidates differ somewhat in their focus from those expressed by teachers at more advanced career stages (Hart & Murphy, 1990; Murphy, Hart & Walters, 1989), important themes in the work redesign and school reform literature emerged from the analysis. Teacher candidates at this early stage (having just finished student teaching) expressed enthusiasm and pride in their choice of the teaching career. They were eager to see reforms that provided opportunities for the best teachers and linked with student benefits. They sought career growth and development opportunities for themselves along with a first job and a chance to try their wings.

Because the appeal of work reforms for the "best and brightest" teachers were the focus of inquiry, the career and work values of teacher candidates of the highest and of lower achievement and promise were examined. Teachers with exceptional GPAs (above 3.5 out of 4.0) and the highest possible ratings by supervisors (5.0 on a 5.0 point scale) were compared with the career values of teachers of lower academic achievement (below 3.2 out of 4.0) and less promising ratings (other than 5.0). The GPA 3.2 was chosen for the dividing point because it was the mean GPA of all respondents; all those above 3.2 were above the mean in this sample. This comparison yielded telling differences, even among a sample of teacher candidates of high achievement and promise overall. In particular, the most extraordinary teacher candidates were less confident of and positive about their career choice than their colleagues, raising serious turnover and retention alarms right at the outset of their careers. Significant differences between teachers at the elementary and secondary levels also emerged. Candidates at the elementary level were significantly less positive about the contributions that performance-based rewards and teacher power in decision making can make to school effectiveness than were those at the secondary levels. These differences between secondary

and elementary teachers contradict those reported in many studies about the teacher career attitudes of established teachers and reinforce the importance of examining the organization and design of work in school organizations.

The impacts of reforms on teacher candidates deserve the interest of policy makers, because they foreshadow the future effects these reforms might have on the teacher workforce. This study of teacher candidates showed that this group of young teachers holds very different attitudes about their work and careers than those reported among average teachers (Amsler, et al., 1988). Teacher candidates at this early stage (having just finished student teaching) expressed enthusiasm and pride in their choice of the teaching career. Because career growth opportunities were important to all these teacher candidates (and the sample was of very high quality), they emerge as important avenues for policy intervention designed to prevent dysfunctional turnover.

California Mentor Teachers

While the career ladder model found favor in states such as Utah and Missouri, teacher work reforms designed to improve teaching and learning by providing incentives for the best teachers to remain in the profession often adopt the mentor teacher model. Little (1990) provided a comprehensive analysis of the mentor teacher phenomenon and its effects in California and other states that raised important questions about control over time, work norms, and accountability in teacher work redesign reforms and the fundamental contradiction in "assigned mentors" who must leave their own work to observe (let alone work side-by-side with) a mentee. Jokes now circulating among California teachers provide a telling look at some of the challenges faced when programs must bow to old turn-taking attitudes and a poor articulation of career growth and career development intended by the reforms. At a mentor teachers conference held in California in December 1989, teachers told jokes about having "post-mentor syndrome" and being in "mentorpause." These teachers resigned themselves to looking for something to do next to expand their horizons. Their jokes should

not be taken lightly; they reveal a deep-seated failing in work reform for teachers that focuses on temporary, one-shot pay or job opportunities that fail to address life-long, professional, career goals and growth needs in the best teachers. The Utah version of these jokes describes the "step ladder: you step on and you step off" or "I thought a horizontal ladder was a catwalk." To assess the possible impacts on work and career incentive attitudes related to turnover that might occur for highly accomplished teacher mentors, a survey study of mentor teachers drawing on the same theoretical framework and method as the Murphy, Hart & Walters study described above was undertaken. The responses of California mentor teachers to the features of their new work were sought, both as they relate directly to Bluedorn's predictive model and in their own words as they described the most telling experiences of their mentor careers.

The instrument developed by Murphy and Hart for the investigation of turnover attitudes of teachers in their first five years of work also was adapted for this investigation. Questions related to current work experience were rewritten to relate to the Mentor Teacher Program, and only those questions that loaded high on each turnover factor in the Murphy, Hart, and Walters study were included and a item aimed at teacher performance efficacy was added. The final instrument included twenty three (23) items. Twelve demographic variables also were collected.[5]

A copy of the instrument along with a cover letter from the researcher explaining the methods and purpose of the study were given to each participant in the California Mentor Teachers conference in San Francisco, California in December 1989. A raffle and door prizes for these returning the questionnaires was provided by conference organizers. This resulted in the collection of 264 useable surveys (278 returned) from a total conference enrollment of about 300. The return rate obtained through this procedure was at least 90%. A number of conference participants were principals and district office administrators.

Multiple statistical procedures were used to analyze the data and provide data comparable to the study of teacher candidates. First, descriptive statistics were computed for each item and each respondent (N = 264; See Table 8). Second, responses were factor analyzed (based on 1-way means, principal component extraction and varimax rotation for the 23 items) to test and refine the conceptual categories in the instrument developed from the Murphy et al. study, and questions incongruent with factor patterns were eliminated. Third, a series of multiple linear regressions were performed in an effort to examine the effects of level, gender, and GPA on the four factors. Finally, analysis of variance was used to test for significant differences in career and work attitudes among the teacher mentors.

A four factor model best described the career choice and turnover attitudes of this sample of mentor teachers and helped illuminate the values that motivated their choices to attempt a teaching career. The factors were named according to the focus of items that loaded highest on each factor. Questions that failed to load on any factor or loaded equally on two factors were eliminated from the analysis. Taken together, the four factors explained 47% of the total variance in the teacher candidates' attitudes toward their careers and toward possible turnover. (See Table 9 for the factor loadings and items in each factor explaining the early career attitudes of the teacher mentors.) The factors matched much more directly the original turnover framework than did the factors resulting from the analysis of teacher candidates' responses and included: (1) job satisfaction and professional efficacy (21.7% of variance); (2) job search and intent to leave (11.1% of variance); (3) organization experienced, including power and authority opportunities for mentor teachers and contributions to the school (9.0% of variance); and (4) expectations related to time and resource availability (5.6% of variance). (Original model included expectations, organization experienced, job satisfaction, commitment, and in job search/intent to leave. Commitment and job satisfaction items loaded together in the same factor.)

In an effort to examine the effects of level (elementary versus intermediate versus high school), gender, age, and undergraduate GPA (moderate versus high) on the four factors, a series of multiple linear regressions were performed. Based on the results of the regression analyses and variable correlations, factors one (job satisfaction and professional efficacy), three (organization experienced), and four (time and resource expectations) warranted further analysis ($p \leq .27$ for regression including all independent variables). The Pearson Product correlation coefficients (2-tailed significance) also demonstrated that factors one and two, one and three, and two and three were highly correlated (See Table 10). Not surprisingly, job satisfaction was closely related to job search and intent to leave as well as to the organization experienced.

For factor three, level and sex were identified as viable independent variables for use in an ANOVA. A main effect was found for level (F (1.220); $p<.01$). Subsequent post hoc analysis, using the Tukey Studentized Range Method, revealed significant differences at all levels, including respondents working as principals or district supervisors (See Tables 11 and 12). Elementary teacher mentors responded significantly more favorably to the factor related to power and authority opportunities for mentor teachers and assessing the contribution of mentor teachers to the schools than did either middle or high school teachers (F (3,220); level 1 vs. level 2 $p \leq .05$; level 1 vs. level 3 $p \leq .01$). Respondents currently not working as teachers were the most positive group about differentiated rewards and responsibilities (level 3 vs. level 4 $p \leq .01$). This factor is analogous to the factor teacher candidates responded to relating to performance-based rewards and teacher power, but the attitudes expressed by teachers at the different levels were exactly the reverse of those expressed by teacher candidates in the other research sample.

Sex also emerged as a viable independent variable predicting responses to factor three. The ANOVA revealed that men were more eager to pursue differences in rewards than women

($p \leq .057$; See Table 13), a difference of particular interest because of the more positive attitudes of elementary teachers toward this factor than of secondary teachers.

For factor one, GPA emerged as a viable independent variable in preliminary analysis. The higher the GPA, the more positive the response to items descriptive of job satisfaction and professional efficacy. However, ANOVA yielded a relationship not statistically significant ($p \leq .28$), and the analysis was abandoned.

Finally, age functioned as a potential predictive independent variable for factor four. Because age is a continuous variable, the researcher used multiple regression analysis to examine its effects which were found to be statistically significant ($p < .01$; See Table 14). The older the mentor teacher, the less likely he or she was to believe that increased resources in the form of time, materials, or professional support would improve his or her teaching.

The results of these analyses suggest that level, sex, and age play a part in mentor teachers' work design and career turnover attitudes, although their impact differs for different stages or aspects of the turnover model. Mentors who are themselves high achievers are more satisfied and express stronger professional efficacy (ability to affect students' performance). Men are more likely to favor power and authority opportunities for mentor teachers, as are elementary school teachers. Finally, older teacher mentors are less likely to believe that more assistance from other educators and time and resources will yield better teaching outcomes.

The preceding studies of teachers from candidacy through mature leadership show major differences in career values and attitudes the best and less able teachers and among teachers at different career and achievement stages. The differences between those in target populations and other teachers appear to intensify and solidify as teachers move through the early years of their careers. At the same time, major changes in attitudes about differentiated rewards for teachers develop among teachers whose experience is at different levels of schooling.

A carefully constructed public policy designed to combat dysfunctional turnover throughout teachers' careers requires insight into the attitudes of the best teachers at all stages of their careers. The mentor teachers in the research sample were identified by their superiors and peers as outstanding teachers worthy of leadership opportunities, and the quantitative analysis revealed agreement among them about the design features of their work related to school reform with differences related to age, sex, level, and gpa. With the exception of differences by level, however, standard deviations among the mentors were small. The attitudes of the best and most accomplished experienced teachers thus adds an important dimension to any examination of teacher attitudes toward new work designs in schools (Little, 1990).

Descriptive statistics offered a useful comparison between experienced mentor teachers and teacher candidates as a point of contrast. A few illustrations from the two data sets reveal career values and attitudes driving the turnover decisions of exceptional and experienced teachers and make comparisons possible. The turnover categories introduced at the beginning of this paper are used to organize the discussion that follows in order to draw direct item comparisons. (See Table 15 for the means and standard deviations from which the discussion is drawn.)

(1) **Expectations**. Mentors and teacher candidates in these two samples share remarkably similar expectations about career advancement opportunities, the duration and dependability of appointments, and rewards for better teachers. While mentors see these components as features of work, new teachers see them as interpretations. Only one major difference emerges from the comparison--the commitment to long-term lead teacher appointments. While mentors see long-term appointments as a resource, a way to use training and experience to the advantage of the organization, candidates are mixed in their assessment of the utility of extending appointments beyond the short-term (two to three years)

appointments conventional in most reform plans. All but the most accomplished beginners fear their own opportunities may thus be limited.

(2) **Organization (Work) Experienced**. The experiences of mentors and candidates with new work roles and responsibilities under various reforms yielded no surprises. Mentors were more likely to know what lead teachers do and be more convinced that these roles contribute to the quality of instruction in schools. However, both groups believed that mentors contribute to the professional development of less experienced teachers. Mentor teachers were less adverse to observation during teaching, but neither group showed strong opposition to the practice. Both groups believed that the new job structures for teachers lead to participation in decision making in the school for more teachers.

(3) **Job Satisfaction**. Both mentors and teacher candidates expressed deep satisfaction in their work as teachers and the belief that children benefit as a result of their efforts. Mentors were absolutely convinced and further expressed confidence that their work affected students' performance. The only difference of any magnitude between the two groups was in their conviction that the choice of teaching as a profession was a good one. Mentors, although positive about their decision, were less convinced than were the teacher candidates (another disturbing hint that turnover among the best is a dangerous possibility).

(4) **Commitment**. Similarly, mentors and teacher candidates were strongly committed to the profession of teaching. Not surprisingly, teacher candidates were not particularly committed to the district in which they completed their student teaching and actively sought positions in other districts. When one has no job, organizational loyalty is an unaffordable luxury.

(5) **Intent to Leave**. The intentions of these two groups with very different experiences in the same profession yield some interesting variations. Mentors, while not beating down the doors to leave, were more likely to say they would take a nonteaching job which offered the same benefits and salary as teaching than were teacher candidates (but the very best teacher

candidates' attitudes were more like those of the mentors--see the above discussion). At the same time, mentors expressed more support for the teacher work reforms than did teacher candidates, a sign that the current crop of teacher candidates may have chosen teaching on the basis of expectations rooted in traditional work designs of which exemplary teachers have tired.

Other research bears out this possibility. Hart and Adams (1986) found that young people may choose a teaching career on the basis of their own experiences as students, so new teachers who have made choices based on customary work features may not be as likely to want new opportunities as are the most talented experienced teachers. These results also raise questions about the young people not choosing teaching careers. What do they value that is missing?

Career Ladders in Missouri

In 1985, the Missouri legislature enacted statutes creating and establishing a career advancement program they called the Missouri Career Development and Teacher Excellence Plan (Ebmeier & Hart, 1992). The state Department of Elementary and Secondary Education developed model career plans on which districts choosing to participate in the career ladder reform could base their plans. These models included: (a) three steps or stages of advancement; (b) detailed procedures for the inclusion of teachers; (c) specific entrance criteria for teachers based on a state evaluation model and accepted descriptions of professional tasks and responsibilities expected of teachers at each level; (d) features consistent with teacher certification requirements; (e) access limited to those who had taught for five years in Missouri; and (f) appeals procedures for teachers denied appointments on the ladder. All the plans submitted and approved as career ladders included these features.

A recently completed study examined the impact of the plans on high quality student experiences and student achievement by assessing an intermediate outcome found to lead to these effects--healthy organizational processes associated with effective schools (Pitner, 1988).

These included school maintenance (school's ability to create and maintain its motivational and value structure); adaptation (school's ability to understand and successfully accommodate external environment); goal attainment (school's ability to define objectives, mobilize resources, and achieve desired ends, and integration (school's ability to organize, coordinate, and unify the various school tasks necessary for achievement). The study assessed the impacts of the career ladder on these processes and on student perceptions of healthy social outcomes. Student outcome measures included: (a) academic futility (the relationship between effort and achievement in school); (b) self concept; (c) self reliance; (d) motivation; and (e) achievement and work standards as norms of the school. The study compared twelve (12) schools that had implemented a career ladder program characterized by alternative reward and work structures and twelve (12) matching schools where such programs were absent.

The findings of this study at the school and individual levels provide support for those who seek to improve schools through teacher work designs. At the school level, career ladder schools had more favorable scores on all dimensions (except students' view of school adaptation) than did matched noncareer ladder schools. The greatest differences occurred in school goal attainment and adaptation perceived by teachers and school integration and maintenance perceived by students. At the individual level, differences were even more pronounced. Teachers in career ladder schools perceived that their schools were more able to maintain an appropriate school culture, work together, set and achieve goals, and adjust and incorporate new ideas.

The study also examined the impacts of the career ladder plans on teachers at different experience levels, because a major goal of the Missouri plan (like the Utah reform plans) was to retain experienced and beginning teachers. When the differences among career ladder and noncareer ladder schools were examined across four experience levels, the career ladder program fared well. Mid-career teachers reported significantly higher scores on morale, commitment, satisfaction, school maintenance, school integration, school adaptation, and

teacher efficacy in the career ladder schools. Although teachers with 1-4 years experience cannot participate directly in the career ladder, they also had significantly higher scores on morale, school integration, and school goal attainment. The attitudes of teachers with 5-12 and 21 or more years experienced appeared to be unaffected by the program. With a few exceptions (highly experienced teachers were more likely to remain in education, for example), these teachers' responses with not significantly different in career ladder schools.

This study adds two important pieces of evidence to the other studies summarized in this report. First, the Missouri career ladder program clearly is having a positive impact on school organizational processes widely associated with effective schools. This impact is visible on teachers and, to a lesser extent, on schools. Second, the program is having a differential effect on teachers at various career stages. Mid-career teachers (13-20 years experience) profit from salary increases and take on new responsibilities and career growth opportunities. Beginning teachers (1-4 years experience) are still learning and may welcome the extra resources and professional assistance that the career ladder provides. Teachers respond differently to the same work redesign plans when they have different career and professional development needs. While impacts on student outcomes and achievement are yet inconclusive or unavailable, teacher efficacy, the only major teacher characteristic linked directly by research to student achievement (Ashton & Webb, 1986), was significantly higher in the career ladder schools. At the same time, the school organizational processes closest to the actual reform were positively affected. These findings affirm that patience and perseverance may be warranted to avoid premature abandonment of the reforms.

Teachers' Decision Making Values

Each of the work redesign studies summarized above provide an intriguing glimpse into one issue receiving much attention in education reform--site-based decision making or participatory decision making. A comprehensive study recently completed provides important evidence about major professional areas in which teachers would like to have a greater say in

decision making (Sorensen, 1991). It also provides insight into the formats for participation valued by teachers and the phase during which they would like to participate.

This distinction among the professional domains in which teachers' expertise and interest center when participation in decision making and site-based decision making are discussed is crucial to the success of reforms. Research over many decades and more recently in Dade County Florida, several districts in the Chicago area, and other districts (Smylie & Smart, 1990; Bacharach, 1990; Johnson, 1990) reveals that blanket participation plans often dissatisfy excellent teachers as much as they satisfy teachers. Often superior teachers exhibit a "zone of indifference" (Hoy & Rees, 1974) over issues outside their central professional concerns, yet no tradition of increased power and authority within their zone of professional concerns has developed in the design of school governance systems.

The research in Utah begins to provide important insight into the educational domains in which teachers desire to participate. Sorensen (1991) designed a comprehensive study of teachers in five districts. Using a random sample of schools, she surveyed teachers in 82 schools about those content areas in which they have input, the level of involvement in decision making they experience, and the level of decision making involvement they desire. She found that teachers in her sample experience a discrepancy between their perceived participation and desired participation. The teachers Sorensen studied said they felt deprived of adequate participation in all the major areas of professional concern--strategy and operations of the organization and personal planning and instructional operations. Teachers wanted more input on resource allocation and in the development of organizational goals, providing evidence that teachers in Utah may not view their roles as narrowly as they have in the past. The teachers also wanted more input into the evaluation of teacher performance, student discipline policies, standardized testing policies, grading, and reporting to parents. These issues span the border between the school organization and the classroom. While they want more involvement, the Utah teachers said they feel less deprived currently in decisions

about what to teach and how to teach it (e.g., curriculum, methods, textbook selection). While they want more participation in this area, they also have more participation in this area at present. Sorensen also found that teachers want more involvement in decisions at all phases--from the time decision opportunities first arrive through to the final and direct decision making.[6] The findings of this study affirm the utility and appeal of direct, informal, and voluntary participation patterns for teachers on personal (career and classroom) issues and direct, more formal, and voluntary participation on school/organizational issues.

A number of recommendations were made by Sorensen. She found that efforts to increase participation should focus on content on which teachers clearly desire more input. Second, the process for decision making and participation should be organized differently for different kinds of decisions. When issues requiring strategic planning at the organizational level are discussed, teachers prefer direct, required, and both formal and informal participation. When considering daily operations at the classroom level, teachers prefer direct, informal, voluntary participation. Teachers also want to be involved in all phases of the processes--not just providing input or being called in to vote after the problem and decision have been defined by others. Sorensen's data provide insight for legislators and policy makers as they seek to design site-based and participatory decision making plans that are most likely to tap the creative and professional energy of teachers. The Dade County experience and experience in many other settings (Conley, 1991) suggest that plans that simply support participation in decision making without attending to crucial professional values and instructional goals may be less than successful.

Discussion

The studies summarized in this paper, as well as many others that explore the results now emerging from a decade of teacher work reform, offer insight into the potential of different work designs for attracting and retaining the best teachers as a strategy for improving schools and schooling. A number of themes emerge from these studies of reforms in Utah and of

reforms drawing on structures similar to those being tried in Utah. These themes provide guidance for Utah policy makers who seek to support initiatives with the greatest potential for accomplishing the goals with which the decade began--improving schools and improving learning for students.

How do academic ability and work performance affect the turnover attitudes and actual turnover of teachers in various stages of their careers from preservice to advanced leadership positions? The best and most accomplished teachers leave the profession in greater numbers than their less able counterparts. When they do not leave, they nevertheless know that their options remain open and their attitudes reflect that knowledge.

How do incentive, work design, and reform features affect teacher turnover attitudes? These effects differ depending on career stages and needs. Men, teachers well into their careers, and elementary teachers (excluding the newest teachers) value rewards based on performance and superiority.

Do high performing, high ability teachers perceive the work and incentive redesign features of career ladders and mentor teacher programs more favorably than do their less able and less promising counterparts? Yes. They are less threatened by competition and seek the challenge of system-wide improvement and performance. They also are more likely to seek jobs outside education.

What experiences working, supervising, leading, and making decisions affect teachers attitudes about the features of their work under various reform structures? Teacher mentors seem to differ from teacher candidates on the dimension. While teacher candidates at the secondary level want more differentiated rewards and authority, this value appears to reverse with extended experience.

What effects do these teachers see the reforms having on curriculum, instruction, teaching, and learning in schools? What other performance data such as organizational effectiveness are available? The preliminary outcome data suggest that work redesign reforms

affect intermediate performance measures related to student performance. Final judgments depend on continued diligence in research and development over time and focused on organizational, personal, and outcomes measures.

Policy Implications

The studies summarized in this paper (and many others that explore the results now emerging from a decade of teacher work reform) offer insight into the potential of different work designs for attracting and retaining the best teachers. Four issues emerge from these studies. These issues can guide Utah policy makers who seek to support initiatives with the greatest potential for accomplishing the goals with which the decade began--improving schools and student learning by improving the appeal of the teaching career.

(1) The target population (the "best and brightest" in the words of the Utah Legislative Strategic Planning Committee) holds different work values and aspirations than do teachers of lesser ability and promise. They are more committed to serving students and more disillusioned when they feel they have failed to affect children's learning and development. They are less concerned about being observed but more disdainful of canned observation instruments and short observations as a means for assessing a teacher's full work impact and activity. Their experience has taught them to distrust pay bonuses based on these systems, because they have seen bonuses distributed widely, shared and divided among teachers, and given to teachers of questionable quality with career-long problems. When teachers judge their new tasks to be trivial or disconnected from their core teaching goals (what they call in interviews "Mickey Mouse"), they express contempt for the new work designs; when they see new tasks contributing to quality instruction and core teaching and learning activities, they praise them. The best teachers are less concerned about differentiation among teachers' work assignments and rewards than are their less able peers and seldom praise the uniform salary schedule as a means for accomplishing their career goals. This group is committed in principle to rewarding the best teachers--with career growth and development opportunities,

with influence and authority, with responsibility school-wide, and with influence over the development of new teachers entering the profession. They also have more opportunities to leave teaching, are less intimidated by career change, and continually survey their environments for enticing opportunities. In other words, education constantly is at risk of losing them to other fields. The best and most promising teachers express a lack of confidence that schools will consistently reward good teachers with pay, authority, and career opportunities and that schools will solve time and resource problems. These teachers remain unconvinced that the system will differentiate fairly and consistently among the best and poorest teachers over time.

This finding leads to the conclusion that opinion surveys focused on all teachers, public perceptions, or administrators' attitudes provide little insight into the career values of the target population of teachers and potential teachers. If policy makers hope to affect the attraction and turnover rates of teachers whose membership in the profession they seek, then the career values and turnover attitudes of the target population must be the focus of study. Additionally, program and policy evaluations must focus to some extent on the impacts of policy decisions on the turnover of people in these populations. This recommendation by no means should be taken to suggest that the vast majority of teachers are not valuable public employees whose retention should be of major concern. This is not the case. But the hemorrhage that bleeds the nation, including Utah, of a disproportionate number of its best teachers must be stopped by carefully targeted public policy (Murphy, Hart & Walters, 1989; Schlechty & Vance, 1983; Smith, 1986).

(2) Preliminary findings carefully comparing schools with and without career ladders but matched for similar characteristics along other important dimensions show early positive effects in schools where work is restructured and reward opportunities are systematically available (Ebmeier & Hart, 1992). Positive impacts appear in improved organizational processes associated with effective schools and are most pronounced for teachers in mid-

career (13-20 years) and for beginning teachers. Since the highest dysfunctional turnover rates reported over and over again in national studies occur in the first five to seven years of teaching, and experienced teachers who have not yet achieved senior status are in a vital and active career stage, these findings support calls for patience, perseverance, and systematic development of career and work plans that address critical instructional and teacher career needs.

An important condition qualifies this finding, however. Since teachers at all levels (and particularly those who are high achievers and those who have achieved leadership status) support rewards, increased authority, professional and school-wide responsibility, and career growth opportunities for the best teachers, these work design features deserve attention from policy makers and administrators. When teachers see direct ties between new work features and teaching and learning in schools, their commitment and support for reforms increase. They also need assurance that these resources will remain available.

The best interests of students frequently get lost in all the reform rhetoric for several reasons. First, teacher work and compensation reform often is defined as a labor issue--the negotiation of a condition of work--rather than as a professional issue--the best interests of the client. Because instruction and, eventually, student achievement are far removed in the causal chain from reform to outcomes, and because ties should rightfully be made only after patient, rigorous, and long-term research, the temptation occurs to ignore even perceptual connections between reform and student effects. Second, few studies assessing differential impacts on students have been mounted to date. The student achievement data consistently recorded comes in the form of standardized tests scores, an outcome measure whose most predictive antecedents fall far outside the parameters of current teacher work reform except in the most longitudinal and carefully designed models that control for extraneous variables. Ebmeier and Hart (1992) demonstrate, however, that intermediate variables found to lead to

student achievement show some effects of teacher work redesign. Further long-range research like this needs to be designed and completed.

(3) Student outcome data conceptually consistent with the nature of the reforms must continue to be a focus of research and evaluation. The Ebmeier and Hart (1992) study found evidence that socially healthy student outcomes linked by research to student achievement are emerging in schools where teacher work reform is successfully implemented. These ties are nascent and tenuous, but they also are conceptually consistent with the nature of the reforms. Long-range research and evaluation studies that collect data on schools, teachers, and students systematically and over the years should be mounted to examine not only the presence of student outcomes but the school and teacher work structures associated with the most desired student outcomes. Until such studies are undertaken, no direct links between all the reforms in education and students' goals and achievement will be possible. Even if changes in achievement are noted, no trustworthy ties to policy, management interventions, or work redesign can be made with confidence. Things may change, yet no one will know why.

(4) Regardless of the brilliance of design and the enthusiasm of implementation of school reform plans, effects occur in real schools where children and youth, teachers, administrators, and other educational professionals do their work each day. The social and personal environment will unintentionally dilute the most promising reform if carefully planned support systems are not constructed and maintained. The proverbial road to hell is paved with good intentions, and research in schools confirms the aphorism (Hart, 1990a). Change, particularly change in a venerable institution such as the public schools, requires organizational development, inservice support and training, and continued patience when conflict, discomfort, and unfamiliar demands threaten to yield the "vanishing effect," (Hackman & Oldham, 1980), a gradual return to the comfort of familiar and conventional practice. School reform succeeds or fails at the most personal level--where children and youth work to learn and teachers work to teach. In an environment of scarce resources, this is an

unwelcome message, because it costs--in time, in dollars, and in human resources. Policies that undermine the availability of these resources fundamentally undermine teacher work reform.

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ENDNOTES

1. This process was desirable because some university majors customarily result in higher average GPAs than others.

2. This division of teachers as "outstanding" in one group and "low, average, or good" in the other was necessary in order to develop a basis for comparison, because so many principals rated the new teachers outstanding.

3. A detailed description of the development of these instruments and their reliability and validity is available in Murphy, Hart & Lawrence, 1989 and in Ebmeier & Hart, 1992.

4. All the teacher candidates in this sample performed well in school; the average GPA of respondents was 3.2.

5. Level was coded as follow: 1 -- elementary, 2 -- middle or junior high, 3 -- high schools, 4 -- other. Thirty four (34) respondents marked level 4 in response to the survey.

6. Site-based decision making and participation can vary dramatically. Teachers can, for example get involved at varying stages: (1) not be informed that decisions even are being made; (2) be informed that decisions are being made; (3) give their opinions about the decision; (4) believe their opinions are taken into account but not participate directly in the final decision; or (5) give approval, vote, or veto a decision (Sorensen, 1991). They also can identify problems that need decisions; determine guidelines for making decision; gather facts and opinions; suggest choices and alternatives,; express preferences (Imber & Duke, 1984).